

The AMN Healthcare Clinical and Quality Operations teams have been following the Ebola concerns closely. The Centers for Disease Control and Prevention has recommended the entire healthcare community institute screening measures to promote identification, protection, and isolation from the virus. Early recognition and safe patient handling by healthcare personnel (HCP) are imperative to stopping the transmission of the virus.

As an AMN Healthcare clinician or physician working at a client facility, you are encouraged to inquire now about facility-specific policies and procedures regarding care of a patient with Ebola, and request training on Personal Protective Equipment (PPE) and patient handling procedures from your unit/facility management. Clinicians and physicians are expected to follow all facility policies and procedures, as well as CDC guidelines. Strict adherence to recommended PPE procedures, safe patient handling, including handling of medical equipment, bodily fluids, and used PPE, and hygiene procedures are necessary to ensure patient and employee safety.



The information below is adopted from the CDC's website for Ebola Virus Disease as of 10/16/2014, and includes information from the ANA/HHS call conducted on 10/16/2014. This information is specific to healthcare personnel. The CDC remains the authoritative source on handling this virus, and AMN encourages all clinicians to closely follow the CDC's website at <http://www.cdc.gov/vhf/ebola/index.html> for the most up to date information.

Transmission:

Ebola is spread through direct contact. This can be through breaks in the skin or through mucous membrane contact with:

- Blood, body fluids, or secretions of an infected person (such as urine, feces, sputum, sweat, saliva, vomit, breast milk, and semen)
- Objects such as needles, syringes, or medical equipment that have been contaminated with the virus
- Infected animals, especially bats in Western Africa
- Note that in general, Ebola is not spread through air, food, or water

Symptoms of Ebola

The Ebola virus typically incubates for 2-21 days and produces symptoms after 8-10 days. Symptoms may become severe within 24-48 hours, potentially culminating in multisystem organ failure, disseminated intravascular coagulation, and significant volume loss. According to the CDC, Ebola symptoms include the following:

- Fever
- Severe headache
- Muscle pain
- Weakness
- Diarrhea
- Vomiting
- Abdominal pain
- Unexplained bleeding or bruising

Treatment for the Patient with Ebola Virus Disease

Care of the patient infected with Ebola is primarily supportive in nature with an emphasis on fluid resuscitation, maintenance of adequate blood pressure and oxygenation, and electrolyte therapy. Caregivers also need to be prepared to treat any other infections that may arise.

Infection Prevention Guidelines/PPE

Effective 10/16/2014, enhanced standard, contact, and droplet precautions are recommended for management of hospitalized patients with known or suspected Ebola virus disease (EVD). Healthcare personnel (HCP) should wear **single-use impermeable gowns or coveralls, double nitrile gloves extending over the cuff of the gown or coverall, facemasks, face shields, head covering, and impermeable boot covers that extend to the mid-calf region. No skin should be exposed.**

HCP should standardize the clothes they wear under PPE to limit variation. Standard surgical scrubs and washable shoes are recommended. **Donning of PPE should be done using the “buddy system”** where a trained observer monitors the placement of PPE by the caregiver and reviews for any breaks in protocol or exposed skin. Doffing (removal) of PPE should also be observed to monitor for any contamination.

HCP may also wear N95 respirator masks instead of simple facemasks according to hospital policy and/or patient condition. If either a simple mask or N95 mask is used, a surgical hood covering the head should also be donned. Alternatively, some facilities may require staff to use Powered Air Purifying Respirators (PAPR’s) in place of facemasks or N95’s with surgical hoods. Facilities are encouraged to identify which method of respiratory protection they will follow and stick with it. Much of this decision is based on availability of equipment, staff familiarity with the equipment, and visibility of the staff member through the equipment by the patient and other healthcare team members.

HCP should use disposable products whenever possible, or ensure sterilization before additional use. Patient procedures that induce aerosolization, like BiPap, intubation/extubation, sputum induction, and bronchoscopy should be avoided whenever possible. It is preferable that HCP wear a disposable N95 with full face shield and head covering, or PAPR if involved in an aerosolizing procedure, and dispose or decontaminate properly between each use. Patients should be in a negative pressure room if aerosolizing procedures are necessary.

HCP may be advised to shower after doffing PPE when caring for patients with Ebola if the clothes under their PPE are visibly soiled or they have encountered a large amount of body fluids.

Patient Care Considerations

- Patients should be placed in single/private rooms whenever possible with the door kept shut
- HCP should limit the use of needles and other sharps
- Blood draws and lab tests should be limited as much as possible
- All sharps should be handled with extreme caution and disposed in puncture-proof, sealed containers according to hospital policy
- Visitors should be limited to the fullest extent possible, unless the visitor is essential to the patient’s well-being
- Nurses should follow safe injection procedures utilizing needleless systems whenever possible
- Non-essential surgeries and procedures should be avoided
- Caregivers should be limited and cross-training should be utilized whenever possible

- Non-essential personnel, such as food services workers, should not access patient rooms

Hand Hygiene and Environmental Care

- HCP should always wear double nitrile gloves. The outer gloves should be removed as quickly as possible after soiling by body fluids leaving the inner gloves still in-tact.
- HCP should perform hand hygiene frequently, including but not limited to, before and after all patient contact, contact with infectious and/or contaminated material, and with donning and doffing of all PPE. Proper hand hygiene is essential.
- Hand hygiene may be performed with alcohol-based hand sanitizers if not visibly soiled according to hospital policy.
- Commercial sanitizers such as disposable cleaning wipes with virucidal solutions are recommended for cleaning of the patient care environment and are superior to simple bleach solutions.
- Liquid waste from the patients such as diarrhea, vomit, and sputum is approved for disposal into the municipal sewer systems.
- Solid waste from a patient with Ebola is classified by the Department of Transportation as “Category A” and requires haulers to have a special permit in order to transport it off-site. All solid waste requires special packaging in order to be hauled away, or needs to be auto-claved in a 50-70 cu ft auto-clave machine before transport. Most facilities will not have this type of auto-clave machine available, so facilities are encouraged to discuss disposal plans and permits with their medical waste hauler ASAP.

Note: This section is cited directly from the CDC, the authority on Ebola. This material can be accessed on the CDC’s website at <http://www.cdc.gov/vhf/ebola/hcp/index.html>

Exposure

- Persons with percutaneous or mucocutaneous exposures to blood, body fluids, secretions, or excretions from a patient with suspected EVD should
 - Stop working and immediately wash the affected skin surfaces with soap and water. Mucous membranes (e.g., conjunctiva) should be irrigated with copious amounts of water or eyewash solution
 - Immediately contact occupational health/supervisor for assessment and access to postexposure management services for all appropriate pathogens (e.g., Human Immunodeficiency Virus, Hepatitis C, etc.)
- HCP who develop sudden onset of fever, intense weakness or muscle pains, vomiting, diarrhea, or any signs of hemorrhage after an unprotected exposure (i.e. not wearing recommended PPE at the time of patient contact or through direct contact to blood or body fluids) to a patient with EVD should
 - Not report to work or should immediately stop working
 - Notify their supervisor
 - Seek prompt medical evaluation and testing
 - Notify local and state health departments
 - Comply with work exclusion until they are deemed no longer infectious to others
- For asymptomatic HCP who had an unprotected exposure (i.e. not wearing recommended PPE at the time of patient contact or through direct contact to blood or body fluids) to a patient with Ebola HF

- Should receive medical evaluation and follow-up care including fever monitoring twice daily for 21 days after the last known exposure.
- Hospitals should consider policies ensuring twice daily contact with exposed personnel to discuss potential symptoms and document fever checks
- May continue to work while receiving twice daily fever checks, based upon hospital policy and discussion with local, state, and federal public health authorities.

AMN Healthcare's Support for Our Clinicians and Physicians

AMN Healthcare encourages you to first contact your immediate supervisor at the facility you are working at for concerns related to caring for a patient with Ebola or the proper donning/doffing of PPE. AMN Healthcare does employ a team of clinical managers and directors who are available to assist you as necessary. You can reach your clinical manager or director by contacting AMN Healthcare at 800-282-0300. You may also email Qualifications.Review@amnhealthcare.com and a clinical manager or director will respond to your message.